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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------|------------------------|
| 09/873,287 | 06/05/2001 | Tomio Sugiyama | MNL-2635-16 | 4759 |
| 23117 7590 01/12/2007 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203 | | | EXAMINER OLSEN, KAJ K | |
| | | | ART UNIT 1753 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

09/873,287

Applicant(s)

SUGIYAMA, TOMIO

Examiner

Kaj K. Olsen

Art Unit

1753

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 08 December 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached discussion.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12-8-2006 have been fully considered but they are not persuasive. Applicant urges that neither Kobayashi nor Nanataki teach the formation of a crystal phase containing silicon dioxide between the solid electrolyte sheet and insulating sheet.

However, the instant invention evidenced that this crystal phase was an inherent result of the addition of silicon dioxide to the electrolyte. Because it was already known in the art to add silicon dioxide to an electrolyte for different reasons (see Kobayashi and Nanataki), then this addition of silicon dioxide to the electrolyte of Tatumoto, which Kobayashi and Nanataki both provided motivation for doing, would have inherently resulted in a crystal phase between the electrolyte and insulating sheets. A patent cannot be granted for an applicant's discovery of a result, even though it may have been unexpected good, which would have flown logically from the teaching of the prior art.

2. Applicant also traverses the examiner's use of Fujishiro as providing evidence that the silicon dioxide added to the electrolyte forms a distinct phase on the surface of the electrolyte. In particular, applicant urges that Fujishiro only suggests that added silicon dioxide has a strong affinity for the metallic coating. First, the examiner is confused about the applicant's continued emphasis on the teaching of Fujishiro when Fujishiro is merely being utilized as an evidentiary teaching and is only being utilized as that in the alternative to the evidence from the instant invention. Second, applicant is missing the larger teaching of Fujishiro that it was known that silicon dioxide added to an electrolyte formed a phase distinct from the electrolyte itself when subjected to a heat treatment. One possessing ordinary skill in the art would recognize that this

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would be true regardless of whether a metal or some other component were at the surface of the electrolyte. In particular, Fujishiro teaches that the silicon dioxide added to electrolyte forms a phase distinct from the electrolyte and that that phase has strong affinity for the metal surface. See col. 5, ll. 21-26. There is nothing in Fujishiro to suggest that this distinct phase only forms because of the metal surface nor is there any reason to believe so either. Whether or not the silicon dioxide would separate itself from the zirconia solid solution would appear to be a function of the solubility of silicon dioxide in the zirconia during the sintering.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (571) 272-1344. The examiner can normally be reached on Monday through Friday from 8:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AU 1753
January 9, 2007


KAJ K. OLSEN
PRIMARY EXAMINER